

Mineral Industry Surveys

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COPPER IN AUGUST 2002

Mine and smelter production in August were essentially unchanged, while primary refinery production fell by about 5% compared with that of the previous month. Consumption of refined copper rose by almost 6% to the highest level since May. According to preliminary projections compiled by the U.S. Geological Survey, mine production of copper in 2002 is expected to decline to 1.13 million metric tons (Mt), down from 1.34 Mt produced in 2000; refinery production is expected to decline to 1.54 Mt, down from 1.80 Mt in 2001; and reported refined consumption is projected to decline to 2.50 Mt, down from 2.62 Mt in 2001.

According to preliminary world data released by the International Copper Study Group (2002), the apparent refined copper surplus for the first 8 months of 2002 amounted to 74,000 metric tons (t). This compares to a surplus of 309,000 t in the January to August period of 2001. Preliminary results for August 2002, however, show a deficit of 13,000 t of refined copper. World copper use for the first 8 months of 2002 increased by 150,000 t, 1.5%, compared with the same period last year, while refined production fell by about 80,000 t, 0.8%. The consumption rise continues to be fueled by a large growth in Chinese apparent consumption.

According to Platts Metals Week (2002), ASARCO Incorporated resumed stripping operations at its Ray Mine in Arizona and has rehired 335 workers laid off when it halted stripping in June. Stripping operations at its Mission Mine in

Arizona remained suspended. The Ray Mine has been maintaining production by high-grading ore. Concentrator production at Ray for the first 6 months of 2002 totaled about 68,000 t of copper in concentrate. Production at Mission totaled 19,800 t for the same period.

Asarco announced that it had submitted to the U.S. Department of Justice (DOJ) a comprehensive proposal for environmental remediation at its closed plants and other sites where the company historically operated. The proposal was a response to the concerns raised by the DOJ in connection with the proposed transfer of Asarco's shares in Southern Peru Copper Corp. (SPCC) to its U.S. parent company, Americas Mining Corp. (ASARCO Incorporated, 2002). Following a court injunction filed by the DOJ, Asarco and SPCC filed a stipulation agreement with the DOJ, legally binding Asarco not to sell any of its SPCC shares until a U.S. court rules on the DOJ motion. (See Copper in July 2002.)

References Cited

- ASARCO Incorporated, 2002, Asarco submits environmental proposal to the Department of Justice: Phoenix, ASARCO Incorporated press release, August 30, 2 p.
- International Copper Study Group, Copper—Preliminary data for August 2002: Lisbon, International Copper Study Group press release, November 7, 1 p.
- Platts Metals Week, 2002, Asarco stripping ore at Ray Mine after July halt: Platts Metals Week, v. 73, no. 35, September 2, p. 2, 3.

TABLE 1
SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES 1/

(Metric tons, unless otherwise specified)

	Source table 2/	2001 p/	2002		
			July	August	January - August
Production:					
Primary:					
Mine, recoverable	(2)	1,340,000	92,000 r/	91,700	752,000
Refinery:					
Electrolytic:					
Domestic	(4)	808,000	74,100 r/	67,900	530,000
Foreign	(4)	192,000	W	W	40,000 3/
Electrowon	(4)	628,000	49,700 r/	49,300	399,000
Total	(4)	1,630,000	124,000 r/	117,000	969,000
Secondary recoverable copper:					
Refineries	(5)	172,000	6,970	7,580	59,700
Ingot makers 4/	(5)	121,000	10,100	10,100	80,400
Brass and wire-rod mills	(5)	727,000	67,200	70,300	535,000
Foundries, etc. 4/	(5)	67,100	5,590	5,590	44,700
Smelter, total	(3)	919,000	50,400	50,300	455,000
Consumption:					
Apparent	(8)	2,510,000 r/	207,000	NA	NA
Refined (reported)	(7)	2,630,000 r/	204,000 r/	216,000	1,650,000
Purchased copper-base scrap	(9)	1,370,000	113,000	116,000	898,000
Stocks at end of period:					
Total refined	(11)	957,000 r/	1,050,000 r/	1,040,000	XX
Blister, etc.	(11)	98,000	76,600 r/	NA	XX
Prices:					
U.S. producer cathode (cents per pound) 5/	(12)	76.854	76.487	71.981	76.526
Imports: 6/					
Ores and concentrates 7/	(14)	46,600	3,770	NA	NA
Refined	(14)	991,000	80,300	NA	NA
Exports: 6/					
Ores and concentrates 7/	(15)	45,300	1,410	NA	NA
Refined	(15)	22,500	7,690	NA	NA

p/ Preliminary. r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data; included in "Domestic." XX Not applicable.

1/ Data are rounded to no more than three significant digits, except prices; may not add to totals shown.

2/ Numbers in parentheses refer to the detailed tables where these data are located.

3/ January - April only; excludes withheld data.

4/ Monthly data and 2001 cumulative data estimated based on 2000 monthly average.

5/ Source: Platts Metals Week.

6/ Source: U.S. Census Bureau.

7/ Copper content.

TABLE 2
MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES 1/

(Metric tons)

Period	Recoverable copper			Contained copper		
	Arizona	Others 2/	Total	Electrowon	Concentrates 3/	Total
2001: p/						
January - August	586,000 r/	322,000 r/	909,000 r/	411,000	509,000	920,000
August	73,600	35,900	109,000	55,500	55,500	111,000
September	73,000	33,600	107,000	53,800	54,200	108,000
October	76,800	36,600	113,000	55,000	60,000	115,000
November	73,000	29,000	102,000	54,100	49,300	103,000
December	75,900	35,800	112,000	54,200	59,100	113,000
Year	885,000	457,000	1,340,000	628,000	732,000	1,360,000
2002:						
January	65,500	28,600	94,100	52,800	42,500	95,300
February	59,800	31,000	90,800	46,200	45,900	92,000
March	65,500	35,200	101,000	50,800	51,200	102,000
April	62,100	32,800	94,900	50,600	45,500	96,000
May	66,100 r/	29,900	96,000 r/	49,900	47,500 r/	97,400 r/
June	61,700 r/	29,800	91,600 r/	49,400	43,400 r/	92,700 r/
July	62,400 r/	29,600	92,000 r/	49,700 r/	43,500 r/	93,200 r/
August	63,400	28,300	91,700	49,300	43,700	93,000
January - August	506,000	245,000	752,000	399,000	363,000	762,000

p/ Preliminary. r/ Revised.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes production from Alaska, Idaho, Missouri, Montana, Nevada, New Mexico, and Utah.

3/ Includes copper content of precipitates and other metal concentrates.

TABLE 3
COPPER PRODUCED AT SMELTERS IN
THE UNITED STATES, BY SOURCE 1/ 2/

(Metric tons, copper content)

Period	Anode production
2001: p/	
January - August	612,000 r/
August	70,300
September	71,100
October	80,500
November	75,600
December	79,600
Year	919,000
2002:	
January	64,300
February	50,300
March	61,900
April	60,400
May	62,200
June	55,400
July	50,400
August	50,300
January - August	455,000

p/ Preliminary. r/ Revised.

1/ Includes blister, anode and black copper from primary or secondary sources.

2/ Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 4
PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY 1/

(Metric tons)

Period	Primary materials				Scrap	Total refined
	Electrolytic 2/		Electrowon	Total		
	Domestic 3/	Foreign				
2001: p/						
January - August	539,000 r/	120,000 r/	411,000	1,070,000 r/	133,000 r/	1,200,000 r/
August	50,000	20,700	55,500	126,000	16,700	143,000
September	61,200	18,200	53,800	133,000	14,600	148,000
October	60,500	21,300	55,000	137,000	11,800	149,000
November	72,300	18,500	54,100	145,000	7,220	152,000
December	74,700	14,800	54,100	144,000	5,980	150,000
Year	808,000	192,000	628,000	1,630,000	172,000	1,800,000
2002:						
January	66,100	10,600	52,800	129,000	6,920	136,000
February	57,900	8,410	46,200	113,000	7,630	120,000
March	55,900	10,700	50,800	117,000	7,090	124,000
April	62,300	10,300	50,600	123,000	7,630	131,000
May	76,100	W	49,900	126,000	8,180	134,000
June	70,000	W	49,400	119,000	7,760	127,000
July	74,100 r/	W	49,700 r/	124,000 r/	6,970	131,000 r/
August	67,900	W	49,300	117,000	7,590	125,000
January - August	530,000	40,000 4,	399,000	969,000	59,800	1,030,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Domestic."

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Based on source of material at smelter level.

3/ Includes fire-refined copper.

4/ January - April only; excludes withheld data.

TABLE 5
COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP 1/

(Metric tons, copper content)

Period	Refineries 2/		Ingot makers 3/		Brass and wire-rod mills		Foundries, etc. 3/		Total 4/
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2001: p/									
January - August r/	24,900	108,000	19,900	60,500	472,000	13,300	9,810	34,900	744,000
August	4,340	12,300	2,490	7,560	57,300	1,790	1,230	4,360	91,500
September	3,130	11,400	2,490	7,560	56,100	1,140	1,230	4,360	87,500
October	3,720	8,090	2,490	7,560	62,500	1,790	1,230	4,360	91,800
November	2,230	4,990	2,490	7,560	57,800	1,640	1,230	4,360	82,300
December	1,840	4,140	2,490	7,560	58,500	1,880	1,230	4,360	82,000
Year	35,800	137,000	29,900	90,700	707,000	19,800	14,700	52,400	1,090,000
2002:									
January	3,110	3,810	2,490	7,560	60,500	1,790	1,230	4,360	84,800
February	3,350	4,270	2,490	7,560	62,600	1,820	1,230	4,360	87,700
March	2,910	4,180	2,490	7,560	65,400	1,770	1,230	4,360	89,900
April	3,300	4,320	2,490	7,560	64,000	904	1,230	4,360	88,100
May	3,710	4,470	2,490	7,560	64,700	1,840	1,230	4,360	90,400
June	3,430	4,330	2,490	7,560	70,000	1,780	1,230	4,360	95,200
July	2,800	4,170	2,490	7,560	65,500	1,720	1,230	4,360	89,800
August	3,400	4,180	2,490	7,560	68,700	1,570	1,230	4,360	93,500
January - August	26,000	33,700	19,900	60,500	521,000	13,200	9,810	34,900	719,000

p/ Preliminary. r/ Revised.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Electrolytically refined and fire-refined scrap based on source of material at smelter level.

3/ Monthly data and 2001 cumulative data estimated based on 2000 annual data.

4/ Does not include an estimate, based on reported 2000 data, of 3,790 tons per month from new scrap and 2,380 tons per month from old scrap of copper recovered from scrap other than copper-base.

TABLE 6
PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD MILL SEMIFABRICATES 1/

(Metric tons, gross weight)

Period	Production		Shipments		Stocks, end of period	
	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills
2001: p/						
January - August	992,000 r/	1,270,000 r/	994,000 r/	1,270,000 r/	XX	XX
August	128,000	166,000 r/	128,000	165,000 r/	49,700	31,200 r/
September	122,000	156,000 r/	121,000	159,000	50,800	27,400 r/
October	124,000	165,000 r/	123,000	166,000 r/	52,000	24,800 r/
November	116,000	158,000 r/	117,000	155,000	52,300	27,900 r/
December	113,000	134,000 r/	111,000	134,000 r/	54,200	27,900 r/
Year	1,470,000	1,890,000 r/	1,470,000	1,880,000	XX	XX
2002:						
January	123,000	146,000 r/	125,000	143,000	49,500	30,300 r/
February	122,000	139,000 r/	123,000	134,000 r/	48,500	35,600 r/
March	131,000	148,000 r/	130,000	145,000 r/	48,900	38,800 r/
April	130,000	155,000 r/	130,000	157,000 r/	48,800	36,400 r/
May	131,000	155,000 r/	132,000	158,000 r/	48,200	33,000 r/
June	134,000	139,000 r/	133,000	143,000 r/	51,900	28,500 r/
July	123,000	144,000 r/	123,000 r/	147,000	51,400 r/	25,400 r/
August	132,000	148,000	132,000	152,000	51,900	21,500
January - August	1,030,000	1,170,000	1,030,000	1,180,000	XX	XX

p/ Preliminary. r/ Revised. XX Not applicable.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

TABLE 7
CONSUMPTION OF REFINED COPPER 1/

(Metric tons)

Period and item	Wire-rod mills	Brass mills	Other plants 2/	Total
2001: p/				
January - August r/	1,340,000	441,000	41,800	1,820,000
August	164,000 r/	53,100	5,220	222,000 r/
September	154,000 r/	47,400	5,220	206,000 r/
October	166,000 r/	46,600	5,220	218,000 r/
November	153,000 r/	45,700	5,220	204,000 r/
December	132,000 r/	41,800	5,220	179,000 r/
Year	1,940,000 r/	623,000	62,600	2,630,000 r/
2002:				
January	143,000 r/	46,600	5,220	195,000 r/
February	140,000 r/	47,500	5,220	193,000 r/
March	149,000 r/	51,400	5,220	206,000 r/
April	157,000 r/	51,400	5,220	214,000 r/
May	157,000 r/	58,600	5,220	220,000 r/
June	143,000 r/	54,500	5,220	202,000 r/
July	150,000	49,600	5,220	204,000 r/
August:				
Cathodes	157,000	38,000	1,210	196,000
Wire bars	--	--	(3/)	(3/)
Ingots and ingot bars	--	1,520	1,760	3,280
Cakes and slabs	--	(3/)	(3/)	(3/)
Billets and other	W	14,800	2,250	17,000
Total	157,000	54,300	5,220	216,000
January - August	1,200,000	414,000	41,800	1,650,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Cathodes." -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Consumption by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 2000 annual data.

3/ Withheld to avoid disclosing company proprietary data; included with "Billets and other."

TABLE 8
U.S. APPARENT CONSUMPTION OF COPPER 1/

(Metric tons)

Period	Refined copper production	Copper in old scrap 2/	Refined general imports 3/	Refined exports 3/	Stock change during period	Apparent consumption
2001: p/						
January - July	946,000 r/	209,000 r/	676,000	11,500	339,000 r/	1,480,000 r/
July	132,000	26,500	95,800	1,650	108,000	144,000
August	126,000	28,700	80,900	2,590	29,700 r/	203,000
September	133,000	27,100	114,000	1,190	95,600 r/	177,000 r/
October	137,000	24,400	78,600	4,630	32,800 r/	202,000 r/
November	145,000	21,200	148,000	5,290	63,800 r/	245,000 r/
December	144,000	20,600	101,000	571	56,600 r/	208,000
Year	1,630,000	331,000 r/	1,200,000	25,800	617,000 r/	2,510,000 r/
2002:						
January	129,000	20,100	134,000	393	53,600 r/	230,000 r/
February	113,000	20,600	113,000	699	32,200 r/	213,000 r/
March	117,000	20,500	64,300	3,150	19,900 r/	179,000 r/
April	123,000	19,800	105,000	652	18,200 r/	230,000 r/
May	126,000	20,900	70,200	814	(16,200) r/	232,000
June	119,000	20,700 r/	79,500	6,770	(32,700) r/	245,000 r/
July	124,000 r/	20,400 r/	83,500	7,690	13,000 r/	207,000
August	117,000	20,300	NA	NA	(6,360)	NA
January - July	852,000	143,000	650,000	20,200	88,000	1,540,000

p/ Preliminary. r/ Revised. NA Not available.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes reported monthly production of copper from old scrap of copper-base, an estimate for annual reporters, and a monthly average of copper from non-copper-base materials based on 2000 data.

3/ Source: U.S. Census Bureau.

TABLE 9
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP 1/

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers 2/		Brass and wire-rod mills 3/		Foundries, etc. 2/		Total scrap used
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2001: p/									
January - August	44,200 r/	111,000 r/	29,300 r/	83,300 r/	601,000 r/	13,800	17,400 r/	37,900 r/	938,000 r/
August	5,030 r/	15,800 r/	3,670	10,400	73,000	1,840	2,180	4,740	117,000
September	4,490 r/	14,000 r/	3,670	10,400	71,200	1,190	2,180	4,740	112,000
October	4,320 r/	4,460 r/	3,670	10,400	79,200	1,840	2,180	4,740	111,000
November	4,360 r/	2,760 r/	3,670	10,400	73,100	1,660	2,180	4,740	103,000
December	3,900 r/	1,950 r/	3,670	10,400	73,900	1,930	2,180	4,740	103,000
Year	61,300 r/	135,000 r/	44,000	125,000	898,000	20,400	26,200	56,800	1,370,000
2002:									
January	2,390 r/	3,650 r/	3,670	10,400	76,600	1,840	2,180	4,740	105,000
February	3,410 r/	4,120 r/	3,670	10,400	79,100	1,880	2,180	4,740	110,000
March	2,940 r/	4,030 r/	3,670	10,400	82,700	1,830	2,180	4,740	112,000
April	3,340 r/	4,160 r/	3,670	10,400	80,600	951	2,180	4,740	110,000
May	3,750 r/	4,250 r/	3,670	10,400	81,500	1,900	2,180	4,740	112,000 r/
June	3,470 r/	4,170 r/	3,670	10,400	88,300	1,840	2,180	4,740	119,000
July	2,840 r/	4,020 r/	3,670	10,400	82,900	1,770	2,180	4,740	113,000
August	3,450	4,020	3,670	10,400	86,300	1,630	2,180	4,740	116,000
January - August	25,600	32,400	29,300	83,300	658,000	13,600	17,400	37,900	898,000

p/ Preliminary. r/ Revised.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Monthly data and 2001 cumulative data estimated from 2000 annual data.

3/ Consumption at brass and wire-rod mills assumed equal to receipts.

TABLE 10
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP 1/ 2/

(Metric tons, gross weight)

Scrap type and processor	2001 p/		2002			
	January - August	Year	June	July	August	January - August
No. 1 wire and heavy:						
Smelters and refiners	51,400 r/	73,200	5,950	5,570	5,610	44,700
Brass and wire-rod mills	264,000 r/	395,000	39,000	36,400	38,800	291,000
No. 2 mixed heavy and light:						
Smelters and refiners	78,500 r/	103,000	4,800	4,390	4,950	38,100
Brass and wire-rod mills	3,850	5,340	332	235	319	2,280
Total unalloyed scrap:						
Smelters and refiners	130,000 r/	176,000	10,700	9,950	10,600	82,800
Brass and wire-rod mills	268,000 r/	400,000	39,300	36,600	39,100	294,000
Red brass: 3/						
All plants	39,400 r/	57,400	4,660	4,360	4,930	36,600
Leaded yellow brass:						
All plants	238,000 r/	353,000	31,300	29,600	29,300	242,000
Yellow and low brass:						
All plants	72,800 r/	109,000	10,600	10,600	10,600	78,000
Cartridge cases and brass:						
Smelters and refiners	W	W	W	W	W	W
Brass mills	23,200 r/	35,500	6,920	5,880	6,140	38,900
Auto radiators:						
Smelters and refiners	31,300 r/	45,700	3,490	3,490	3,490	27,900
Bronzes:						
Smelters and refiners	7,300 r/	10,900	912	912	912	7,300
Brass mills	5,040 r/	8,300	943	947	930	7,540
Nickel-copper alloys:						
All plants	13,000 r/	18,600	931	1,120	1,420	11,200
Low grade and residues:						
Smelters and refiners	41,500 r/	50,000	1,110	1,110	1,110	8,890
Other alloy scrap: 4/						
Smelters and refiners 5/	7,540 r/	8,890	138	138	138	1,100
Brass mills	3,530 r/	5,570	565	565	565	4,450
Total alloyed scrap:						
Smelters and refiners	136,000 r/	185,000	10,700	10,700	10,700	85,600
Brass mills	347,000 r/	518,000	50,800	48,000	48,800	378,000
Total scrap:						
Smelters and refiners	266,000 r/	361,000	21,400	20,700	21,300	168,000
Brass and wire-rod mills	615,000 r/	919,000	90,200	84,700	87,900	672,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Other alloy scrap: Smelters and refiners."

1/ Does not include: consumption by foundries, chemical plants, and miscellaneous manufacturers, estimated to total about 6,920 tons of scrap per month in 2000; monthly data include estimates of about 15,500 tons of scrap per month consumed by ingot makers and several smelters that report on an annual basis.

2/ Data are rounded to no more than three significant digits; may not add to totals shown.

3/ Includes composition turnings, silicon bronze, zinc bronze, railroad car boxes, cocks and faucets, gilding metal, and commercial bronze.

4/ Includes refinery brass, beryllium copper, phosphor copper, and aluminum bronze.

5/ Includes items indicated by symbol W.

TABLE 11
COPPER STOCKS AT END OF PERIOD 1/

(Metric tons)

Period	Crude copper 2/	Refined copper						Total refined
		Refineries 3/	Wire rod mills 3/	Brass mills 3/	Other 4/	Comex 5/	LME 6/	
2001: p/								
August	93,100	17,800	33,800 r/	23,100	4,680	170,000	459,000	708,000 r/
September	88,100	17,700	39,200 r/	21,100	4,680	181,000	540,000	804,000 r/
October	105,000	19,300	34,700 r/	20,100	4,680	191,000	566,000	837,000 r/
November	88,500	24,300	30,900 r/	24,700	4,680	215,000	601,000	900,000 r/
December	98,000	28,600	37,600 r/	25,500	4,680	244,000	617,000	957,000 r/
2002:								
January	99,200	26,500	42,100 r/	25,000	4,680	258,000	654,000	1,010,000 r/
February	89,200	28,700	26,100 r/	25,100	4,680	275,000	683,000	1,040,000 r/
March	96,000	22,100	24,200 r/	23,700	4,680	284,000	704,000	1,060,000 r/
April	91,000	19,400	31,900 r/	22,300	4,680	296,000	707,000	1,080,000 r/
May	92,800	17,400 r/	26,800 r/	21,000	4,680	304,000	691,000	1,060,000 r/
June	89,600	18,700	20,700 r/	19,700	4,680	322,000	646,000	1,030,000
July	76,600 r/	17,100 r/	25,500 r/	24,100	4,680	338,000	636,000	1,050,000 r/
August	NA	13,300	24,600	26,800	4,680	341,000	628,000	1,040,000

p/ Preliminary. r/ Revised. NA Not available.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Copper content of blister and other materials in transit and in process of refining.

3/ Stocks of refined copper as reported; no estimates are made for nonrespondents.

4/ Monthly estimates based on reported and 2000 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

5/ Commodity Exchange Inc., New York.

6/ London Metal Exchange Ltd., U.S. warehouses.

TABLE 12
AVERAGE PRICE OF COPPER IN THE UNITED STATES AND
ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	U.S. producers delivered price cathode 1/	Comex first position 2/	LME cash price Grade A
2001:			
August	71.559	67.341	66.407
September	69.628	65.428	64.682
October	67.422	63.204	62.460
November	70.560	66.093	64.747
December	72.050	67.832	66.740
Year	76.854	72.567	71.574
2002:			
January	73.944	69.786	68.202
February	76.384	72.226	70.831
March	78.683	74.525	72.779
April	76.966	73.107	72.118
May	77.378	73.220	72.362
June	80.386	76.228	74.715
July	76.487	72.329	72.082
August	71.981	67.823	67.097
January - August	76.526	72.406	71.273

1/ Listed as "U.S. producer cathode."

2/ Listed as "Comex high grade first position."

Sources: Platts Metals Week and American Metal Market.

TABLE 13
NEW YORK AVERAGE BUYING PRICES FOR COPPER SCRAP

(Cents per pound)

Month	Brass mills No. 1 scrap	Refiners No. 2 scrap	Dealers (New York)	
			No. 2 scrap	Red brass turnings and borings
2001:				
August	64.33	55.37	46.00	39.00
September	63.39	54.46	46.00	40.00
October	61.39	52.78	44.48	38.39
November	63.45	53.82	40.09	37.09
December	65.87	54.47	41.47	37.00
Year	69.62	58.96	48.76	40.63
2002:				
January	67.36	55.62	41.19	38.10
February	69.42	57.29	43.00	37.00
March	72.24	59.76	43.00	39.00
April	71.82	54.00	44.00	38.91
May	71.98	60.39	44.00	37.00
June	74.65 r/	71.28 r/	44.00	39.00
July	72.41 r/	61.04 r/	44.00	39.00
August	66.84	55.64	42.45	37.64
January - August	70.84	59.38	43.21	38.21

r/ Revised.

Source: American Metal Market.

TABLE 14
U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS 1/

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	2002			2002			2002			2002		
	2001	July	January - July 2/	2001	July	January - July	2001	July	January - July	2001	July	January - July
Brazil	--	--	--	--	--	--	--	--	--	12,000	2	18,400
Canada	7,210	818	8,350	43	--	75	79,700	6,330	48,700	270,000	13,300	164,000
Chile	19,200	--	31,300	--	--	--	87,700	3,240	19,700	174,000	23,600	126,000
Indonesia	6,010	--	2,910	--	--	--	--	--	--	--	--	--
Italy	--	--	--	--	--	--	12,200	--	--	--	--	--
Kazakhstan	--	--	--	--	--	--	--	--	--	82,400	--	2,060
Mexico	2,550	--	--	317	35	107	48,900	1,330	6,620	131,000	8,150	37,400
Namibia	--	--	--	--	--	--	6,840	--	2,850	--	--	--
Peru	11,600	2,930	5,950	--	--	--	22,600	--	4,730	280,000	26,200	158,000
Philippines	--	--	--	--	--	--	4,990	--	--	999	--	--
Russia	--	--	--	--	--	--	115	--	--	22,800	5,330	12,300
Spain	--	--	--	--	--	--	4,420	--	--	--	--	--
Taiwan	--	17	17	560	57	308	--	--	--	34	--	--
Turkey	--	--	2,910	--	--	--	--	--	--	--	--	--
Other	--	--	2	25	--	4	3,510	--	1	17,400	3,720	14,500
Total	46,600	3,770	51,400	945	92	494	271,000	10,900	82,600	991,000	80,300	532,000

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes revisions to previous months' data.

Source: U.S. Census Bureau; data adjusted by the U.S. Geological Survey.

TABLE 15
U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS 1/

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	2002			2002			2002			2002		
	January -			January -			January -			January -		
	2001	July	July	2001	July	July	2001	July	July	2001	July	July
Belgium	18	19	40	--	--	(2/)	1,550	--	179	30	--	--
Canada	30,300	1,290	10,700	6,860	238	1,810	13,800	1,870	11,500	6,520	205	2,260
China	2,310	61	698	3	--	63	87	--	204	8,520	7,320	13,700
Egypt	--	--	--	--	--	--	2	--	--	2,160	--	2,200
France	1	--	--	64	2	2	2,130	--	40	62	3	42
Germany	443	--	28	50	39	74	982	20	99	169	--	46
Hong Kong	87	--	11	2	51	154	2,470	158	1,510	2,330	--	31
India	8	--	--	261	--	152	125	2	49	--	77	513
Israel	836	--	--	18	--	--	65	3	20	6	--	14
Italy	20	--	--	--	--	--	376	21	111	27	--	--
Japan	19	6	31	8	22	1,300	216	--	40	460	--	2
Korea, Republic of	699	--	191	1,090	5	25	1,320	33	357	78	--	394
Mexico	9,130	38	2,330	15,300	373	5,190	22	--	22	821	31	112
Singapore	159	--	60	(2)	--	(2/)	407	40	259	14	5	5
Taiwan	347	--	4	50	--	64	1,130	60	628	146	17	45
Thailand	22	2	5	--	--	--	264	3	112	--	--	--
United Kingdom	280	--	8	49	65	65	451	22	255	457	27	503
Venezuela	501	--	--	--	--	--	5	--	6	140	--	205
Other	143	4	76	144	4	72	644	352	692	576	7	107
Total	45,300	1,410	14,200	23,900	800	8,980	26,000	2,580	16,100	22,500	7,690	20,200

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 16
U.S. COPPER SCRAP TRADE 1/

(Metric tons, gross weight)

Country or territory	Imports						Exports					
	Unalloyed			Alloyed			Unalloyed			Alloyed		
	2002			2002			2002			2002		
	2001	July	January - July	2001	July	January - July	2001	July	January - July	2001	July	January - July
Belgium	--	--	--	388	--	--	1,260	143	1,050	1,470	813	3,500
Canada	10,600	1,820	9,480	45,800	3,140	22,900	38,700	1,360	11,800	33,100	976	14,000
China	41	--	--	15	40	347	156,000	9,190	68,300	136,000	12,000	80,600
Colombia	--	--	--	899	--	476	--	--	--	18	--	2
Costa Rica	868	118	630	635	59	263	--	--	--	3	--	2
Dominican Republic	1,550	104	903	1,570	64	608	--	--	--	--	--	--
France	--	--	--	188	--	72	11	182	1,010	59	359	804
Germany	27	--	3	62	1	18	6,500	1,150	9,980	9,480	1,470	10,500
Guatemala	499	52	361	1,990	97	698	--	--	--	--	--	(2/)
Honduras	484	91	230	656	30	155	--	--	--	--	--	--
Hong Kong	--	--	--	--	--	--	4,300	1,130	5,800	5,440	90	3,610
India	--	--	--	--	--	--	2,770	418	2,190	33,400	3,360	27,400
Italy	309	--	116	--	--	--	117	--	30	143	--	19
Jamaica	283	35	240	470	13	197	--	--	--	--	--	--
Japan	169	6	42	--	--	13	13,800	1,230	6,920	13,200	815	5,170
Korea, Republic of	--	--	19	20	--	40	24,400	1,630	9,130	17,800	972	11,400
Mexico	13,500	818	5,740	24,000	1,570	10,300	2,760	361	1,460	4,370	21	124
Netherlands	--	--	--	20	--	354	109	--	--	963	--	312
Nicaragua	276	15	219	54	11	44	--	--	--	--	--	--
Panama	161	10	151	804	81	578	--	--	--	--	--	79
Peru	347	--	--	112	--	--	--	--	--	--	--	--
Spain	--	--	--	47	--	(2/)	549	15	52	2,710	--	1,660
Switzerland	--	--	--	45	--	--	596	12	32	3,720	80	1,110
Taiwan	--	--	15	554	18	262	9,120	870	5,750	5,870	853	5,020
United Kingdom	64	--	64	919	155	978	36	--	--	570	225	756
Venezuela	42	11	54	874	76	1,400	--	--	--	--	--	--
Other	992	76	401	4,250	137	1,240	868	188	1,090	3,500	369	1,750
Total	30,300	3,160	18,700	84,400	5,490	40,900	262,000	17,900	*****	272,000	22,400	*****

-- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Less than 1/2 unit.

Source: U.S. Census Bureau.